REMARKS

Claims 1, 3-6, and 8-20 were pending in the application at the time of examination by the Examiner and resulted in the office action of March 12, 2007. In accordance with the instant amendment, claims 1, 3 and 11 have been amended, claim 20 is canceled without prejudice and new claims 21-25 added. A Request for Continued Examination is being submitted concurrently herewith.

In the office action of 3/12/07, the Examiner rejected claims 3 under 35 U.S.C. 112 second paragraph as being indefinite as claims 3 contradicts claim 1.Claims 1 states a plurality of secondary electrical loads and claim 3 states one of these loads being a generator… This rejection has been avoided by submission of new claim 23 and correction of the dependency of claim 3.

New claims 21 and 22 are directed to preferred controllers and examples of indirect loads. Support for the amendment and the new claims is to be found in the specification.

The independent claims have also been amended to delete the language "adapted for" so that the new language provides a positive limitation (see page 6, incomplete top paragraph).

The Examiner's final rejection of the claims as set forth in the office action of March 12, 2007 is based on a new ground of rejection and namely the use of a new piece of prior art in rejecting the claims.

The Examiner has rejected claims 1, 3-6 and 8-20, all of the claims in the case under 35 U.S.C. 103(a) over Soucy, Bushell and Lacy. Soucy is relied on as teaching a power management system for an aircraft including a plurality of secondary loads (direct

– generator, indirect – load), at least one flight condition sensor (engine speed sensor) and a controller (fuel supply controller and governor) coupled to the plurality of loads and the sensor. The Examiner admits that Soucy does not explicitly teach the types of loads being powered, nor how the controller will control the system to work efficiently, leaving that to Bushell, the new reference as relied on as teaching one of the secondary electrical loads powered in an aircraft being a lighting system. Lacy is relied on as teaching a system with a controller and primary (uncontrolled residential) and secondary extraction, current operating conditions and secondary power extraction limit and operate the plurality of secondary loads in response to the secondary power extraction and limits. The Examiner concludes it would have been obvious to one of ordinary skill in the art at the time of the invention to have one of the secondary electrical loads in Soucy's invention be the lighting system of the aircraft, since Bushell teaches a lighting system being one of the loads powered by an aircraft and Soucy's fails to teach specific loads being powered.

As previously argued in an earlier response, applicants' arguments are incorporated herein by reference thereto in their entirety.

Lacy discloses a residential electrical system for controlling the electrical supply to residential homes. The residential system includes a fuel cell system that supplies electricity to residential homes having controlled loads and uncontrolled loads. The controlled loads refer to appliances that can be disconnected via a load sense and switch circuit, and uncontrolled loads refer to appliances that can only be disconnected via circuit breakers in a house. The electrical system regulates the electrical connections of the load sense and switch circuits to prevent the residential electrical loads from exceeding a power threshold. The control circuit of Lacy monitors the output power of

the fuel cell system to all of the residential loads including the controlled and uncontrolled loads. Based on that output power, the control circuit regulates the controlled loads.

The system of Lacy does not make any distinction between which loads are of primary or higher importance. Lacy simply controls the loads that can be regulated via the load sense and switch circuits. Although Lacy discloses determining the power demand from specific controlled loads, this information is used to determine priority of which controlled load is to be deactivated. The loads that demand more power are deactivated first. Lacy does not determine the combined power demand of the controlled loads nor is a power limit set on the controlled loads a group. Clearly Lacy's residential system is completely unrelated and operates in a substantially different manner than the system and methods claimed.

Lacy's priority scheme involves two separate and distinct circuits.

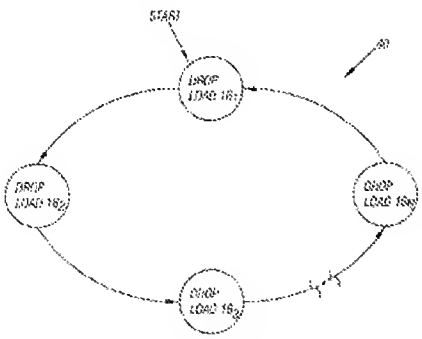

FIG. 2

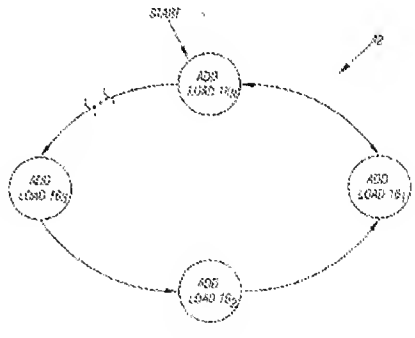

FIG. 3

Figure 2 is a priority scheme for shedding loads off a residential electrical system, i.e., disconnecting the controlled residential loads to bring the output power within the specified ranges while Figure 3 shows a circuit for connecting the controlled residential loads to the electrical system, the connection priority scheme 42 may be an entirely different priority order 40 of Figure 2.

The system of Lacy is entirely unsuited for use in an aircraft for example Soucy and even if implemented as suggested by the Examiner, would not result in the instant invention.

The Examiner points to Bushell as teaching that one of the secondary loads being powered in an aircraft is an electrical system and leaps to his conclusion that it would have been obvious to incorporate Lacy's method of power distribution into Soucy's invention so that the engine can supply power to as many loads as possible and to make sure that the engine never exceeds the output capacity possibly leading to malfunction.

Bushell is relied on as teaching that "one of the secondary electrical loads powered in an aircraft being a lighting system." In essence, Bushell is only about an aircraft lighting system and specifically to providing external aircraft lighting needed to best utilize night vision systems. The Bushell teaching has nothing to do with the Soucy system for power regulation and its isolated lighting provisions other than their application to an aircraft have nothing to do with the Soucy invention. This is also the case with Lacy.

The system of Lacy is entirely unsuited for use in an aircraft for example Soucy and even if implemented as suggested by the Examiner, would not result in the instant invention.

Applicants submit that the structure, function, and purpose of the system of Lacy are also clearly different than that of Soucy and the present invention. Lacy would not have logically commended itself to the inventor's attention in considering the problems solved by the system and methods of claims 1 and 11.

In developing an aircraft secondary electr4ic load controlling system and similar methods thereof, one would clearly not look to a residential electrical system for controlling the amount of power demanded from a fuel cell subsystem. Activating and deactivating controlled appliances to limit the power output of a fuel cell subsystem in a residential setting is substantially different and unrelated to managing power between primary and secondary loads of an aircraft. In the aircraft setting one is maintaining power to the primary loads while limiting power to the secondary loads to maintain flight and maneuverability of the aircraft. In the residential setting one is simply preventing an overload situation on a fuel cell subsystem. Lacy would not be reasonably pertinent to the particular problems solved by the claimed invention. Thus, the Applicants submit that Lacy is nonanalogous art and to use such a reference is improper and far reaching at best.

Furthermore, Applicants acknowledge that limitations from the specification ought not to be read into the claims, however, Applicants submit that the claims ought to be read in light of and in a consistent manner in view of this specification. It would not be consistent with the specification of the present application to interpret the terms "secondary loads" as associated with an aircraft as an electrical load within a residential circuit. Besides, Lacy does not distinguish between primary and secondary loads nor does the circuit of Lacy operate as the claimed system and methods.

Moreover, there is no motivation or suggestion provided in the references or put forward for the combination and modification of the stated references as is required to arrive at the present invention. See *in re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Simply put, Soucy does not provide any pertinent teachings and Lacy is nonanalogous art and is unrelated to both Soucy and the claimed invention. Applicants

are unsure how the stated references would be combined and what would be achieved by such combination.

The Patent Office has recently taken a look at the Supreme Court decision in *KSR International Co. v. Teleflex Inc.* in the form of a memo from Margaret A.Focarino, Deputy Commissioner for Patent Operations. The memo has four main points:

1. The *KSR* opinion reasserts the primacy of four *Graham v. John Deere Co. of Kansas City* factors for determining obviousness.
2. The Court did not overturn the Federal Circuit's "teaching-suggestion-motivation" (TSM) test, which provides a "useful insight' in making an obviousness determination under *Graham*;
3. The Court did criticize application of the TSM test rigidly to require an explicit showing of teaching, suggestion or motivation to combine prior art references to achieve the claimed invention; and
4. Perhaps most importantly, the Court continued to require that a *prima facie* obviousness case requires an **apparent reason** why a person of ordinary skill in the art would combine the references, and that the analysis must be **made explicit**. (Bold in original).

The memo ends with the exhortation that:

> Therefore, in formulating a rejection under 35 U.S.C. 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.

Although it remains too early to tell how these guidelines will be implemented by individual Examiners, it is gratifying to see that Patent Office officials recognize the essentially conservative approach taken by the Supreme Court in its *KSR* opinion, and that the much-anticipated (and greatly feared) upheaval in how obviousness is to be determined is not supported by the opinion.

The Examiner is respectfully requested to consider the *KSR* decision in connection with the rejection of the claims (35 USC 102G) over Soucy, Bushell and Lacy

SUMMARY

It is submitted that the final rejection should be withdrawn and the claims as amended allowed.

Respectfully Submitted,
Attorney for Applicant

Dated: June 12, 2007

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